

Application S/N 10/831,370  
Amendment dated: November 28, 2005  
Response to Office Action dated: August 24, 2005

CE11296JEM

### **REMARKS/ARGUMENTS**

Claims 1-7, 9-12 and 14-21 remain pending in the application, as claims 8 and 13 have been canceled without prejudice. In the Office Action, claims 1, 7, 8, 10, 14, 18 and 20 were rejected under 35 U.S.C. 102 as being anticipated by U.S. Patent No. 5,390,252 to Suzuki, et al. (Suzuki). In addition, claims 2, 3, 9, 11, 15, 19 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Schneier. Claims 4, 5 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Schneier and further in view of the article by L-3 Communications. Finally, claims 6 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of the FNBDT Signaling Plan.

A brief summary of the Suzuki reference may be helpful here. Suzuki discloses an authentication method for a communication terminal and a communication processing unit. In particular, in a first processing mode, the communication terminal will signal the processing unit with a service request signal. In response, the processing unit will request from a memory an authentication key Ka, and the memory will transmit the authentication key Ka to the processing unit. Once it receives the authentication key Ka, the processing unit generates a random number and enciphers the authentication key Ka with a second authentication key. The processing unit then transmits the enciphered signal and the random number to the communication terminal.

The communication terminal stores the enciphered signal and enciphers the random number by the authentication key Ka. The communication terminal then transmits the enciphered random number as a response signal to the processing unit, which verifies the validity of this response signal using the authentication key Ka and the random number.

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In a second processing mode, the communication terminal transmits to the processing unit a second service request using the enciphered signal that the communication terminal previously stored. The communication terminal also transmits a mode specifying signal to the processing unit. The processing unit will then decipher the second service request with the second authentication key and will generate and transmit to the communication terminal a second random number.

In response, the communication terminal will encipher the second random number with the authentication key  $K_a$  and transmit this enciphered signal back to the processing unit. The processing unit will verify the validity of this signal using the authentication key  $K_a$  and the second random number. Suzuki describes handover or the completion of the communication service in the first processing mode as processes that initiate the second processing mode. As such, the enciphered signal that the communication terminal stores in its memory is related to the base station with which it is communicating. At no time does Suzuki mention or even suggest storing the enciphered signal in a recent call list that reflects recent communications between a multi-mode communication terminal and another communication terminal.

In addition, as shown in FIG. 16, once communications are established and during such active communications, the mobile station will send a second service request to a new base station. A secure connection is established with the new base station, similar to the discussion above, while the mobile station is actively communicating with the current base station. The mobile station will then eventually switch to the new base station. Suzuki never describes this process being performed when the mobile station is in an idle mode. Moreover, neither Schneier, L-3

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Communications nor FNBBDT Signaling Plan discuss, mention or even suggest these concepts.

Applicant has amended independent claims 1 and 14 to clarify that the symmetric traffic key is stored in a recent call list that reflects recent communications between the multi-mode portable communication device and the second portable communication device. Support for the amendments can be found in paragraphs 0021 and 0022. No new matter has been added in view of these amendments. As noted above, none of the prior art references disclose such a concept. Indeed, Suzuki exclusively focuses on the communications process between the communication terminal and the base station.

Applicant has also amended independent claims 11 and 21 to clarify that a symmetric traffic key is established using an APK key establishment process between a first portable communication device and the predetermined number of other portable communication devices during an idle mode of the first portable communication device. Dependent claims 10 and 20 have been similarly amended. Support for these amendments can be found in paragraphs 0019 and 0020. No new matter has been added in view of these amendments. Again, none of the prior art references describe such a concept. In particular, in Suzuki, a secure connection is established with a new base station while the mobile station is involved in active communications with the current base station. The mobile station, in contrast with the present invention, is not in an idle mode here. In fact, Suzuki teaches away from establishing a symmetric traffic key in an idle mode because Suzuki consistently focuses on handover as the trigger for initiating the second processing mode.

In view of the above, Applicant believes that Independent claims 1, 11, 14 and 21 are patentable over the prior art. Applicant also believes that those claims that depend

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from these independent claims are now patentable, in view of both their dependence from these claims and their independent patentability. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. Passing of this case is now believed to be in order, and a Notice of Allowance is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge any necessary fee, or credit any overpayment, to Motorola, Inc. Deposit Account No. 50-2117.

Respectfully submitted,

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